

## ABSTRACT OF THE DISCLOSURE

A flow through gas separation apparatus for a direct oxidation fuel cell system that incorporates a porous hydrophobic conduit having an inlet end through which anodic effluent flows is provided. Backpressure created at an outlet end of the conduit allows the carbon dioxide gas of the effluent to be driven through the porous openings of the conduit while un-reacted fuel and water mixture ultimately exits the flow through gas separation apparatus for re-circulation. The gas separation apparatus operates at ambient pressure and independent of orientation of the device with which it is used.